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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
Office Action Summary	10/042,092	SCHEER ET AL.	
	Examiner	Art Unit	
	KAMAL B. DIVECHA	2451	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>19 November 2008</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,7,8,22,25,30,31,33,35,37,39 and 41-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,7,8,22,25,30,31,33,35,37,39 and 41-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

This Action is in response to communications filed 11/19/08.

Claims 1, 7, 8, 22, 25, 30-31, 33, 35, 37, 39 and 41-48 are pending.

Claims 3-6, 10-21, 23-24, 26-27 and 36 were previously cancelled.

Claims 2, 9, 28-29, 32, 34, 38 and 40 are cancelled in response filed 11/19/08.

Claims 41-48 are newly added claims.

Response to Arguments

Applicant's arguments with respect to claims above have been considered but are moot in view of the new ground(s) of rejection.

In communications filed, applicant also argues that:

a.   Abboud does not disclose how to determine the configuration settings initially or how to change the configuration settings so that the appliance server could function in a different network topology or with a different number of WAN IP addresses (remarks, pg. 15).

In response to argument [a], Examiner respectfully disagrees.

In the response filed, it appears that applicant is addressing the *prima facie case of obviousness* [based on the combination of references] by attacking the references individually.

MPEP 2145 (IV) clearly sets forth: One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Based on the claims, "the how to determine and how to change" are with respect to receiving design list, which could be simply inputted by the user, for designing a network and configure the image for the server.

Abboud et al.

Abboud clearly teaches and/or discloses the method and system for configuring and/or reconfiguring plurality of servers (See fig. 2 reproduced below) in order to enable the plurality of servers to provide different purpose and/or function(s) by re-provisioning (pg. 1 [0007], [0010], [0012]).
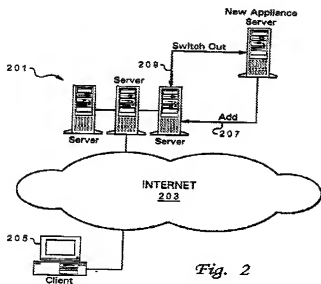
Fig. 2

In other words, Abboud discloses the process of building the digital image for the plurality of servers and configuring the plurality of servers by deploying the digital image onto the plurality of servers, for example, see fig. 6 window 603, reproduced herein.
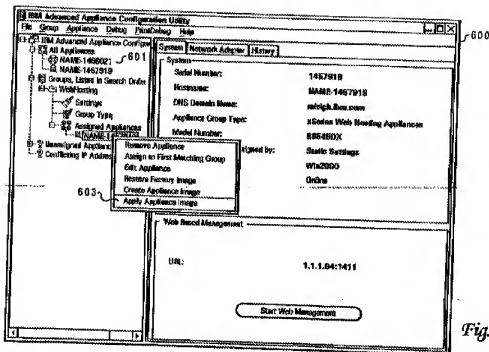
Fig. 6

The built digital image may comprise software and hardware settings in order for the server to function cohesively with other servers.

Steitle et al.

As set forth in the previous office action, see Non-Final action mailed 5/30/07, pgs. 4-5, Steitle, in its clear context, expressly discloses designing a network comprising a firewall server, switches, server farm and/or web server (See fig. 4).

Stated another way, Steitle explicitly discloses the process of generating and/or receiving a network design based on rules and specifications, for example, see fig. 2 and fig. 4 reproduced herein.
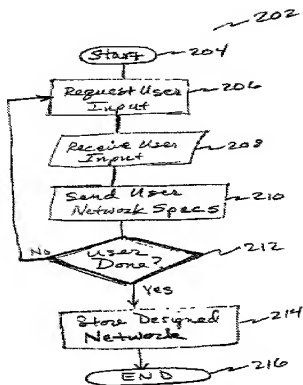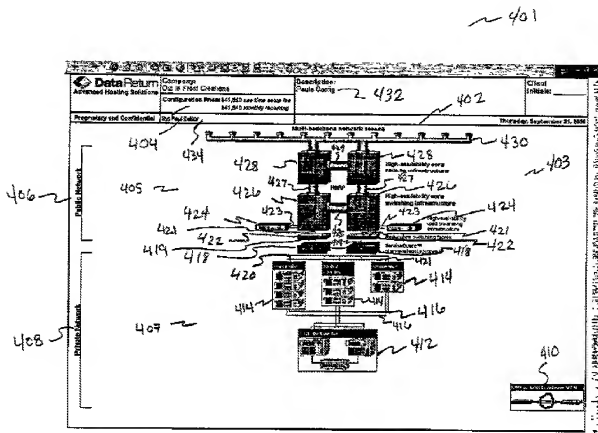
FIG 2

FIG. 4

In view of applicant's specification (See [0021]), the first server may correspond to a firewall server and the second server may correspond to email and/or web servers, which are clearly disclosed in a designed network of fig. 4 item #418, and item #414 that are specifically operable to support dissimilar operations.

As such, one of ordinary skilled in the art can easily combine the two references, i.e. given the network design, one can employ the configuration utility of Abboud in order to obtain a configured network based on a network design.

    b.   Abboud et al does not disclose or suggest a system for building and deploying a configured digital image for a plurality of servers based on a network design (remarks, pg. 15).

In response to argument [b], Examiner disagrees for the same reasons as set forth above.

    c.   Li does not disclose or suggest a method for determining the configuration settings that are stored in the configuration database based on a network list, and does not use the configuration settings to build a configured digital image (remarks, pg. 16).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., determining the settings that are stored in database based on a network list) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 112

The following is a quotation of the **first paragraph of 35 U.S.C. 112:**

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1.   Claims 25, 30, 31, 33, 35, 37 and 39 are rejected under 35 U.S.C. 112, first paragraph, as

failing to comply with the written description requirement.

Independent claim 25 recites:

A computer apparatus... comprising:
...receiving a design list for a plurality of network servers, the design list comprising functions of the network, amount of hardware for the network, type of hardware for the network and number of WAN IP addresses assigned to the network; and
        ...deploy each of the respective digital images onto the plurality of servers from a single user action...

Initially, Applicant has failed to point out where in the specification the support for the

amended limitations is found.

Upon review of the specification as filed, it is noted that the specification fails to teach or

suggest deploying each of the respective digital images onto the plurality of servers from a single

user action. In fact, there is no description of <u>user initiating the deployment</u> of digital images

onto plurality of servers.

At best understood, the master configurer 102 deploys the images onto the corresponding

components in the network in order to produce operational server farm, e.g. specification, pg. 5

[0011], pg. 6 [0015], pg. 7 [0018].

However, this is not equivalent to deploying each of the respective digital images onto

the plural servers **from a single user action.**

Therefore, the claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 30, 31, 33, 35, 37 and 39 are rejected for the same reasons as set forth in claim 25.

In response filed, applicant amended claim 1 to remove this limitation, however, applicant did not remove this limitation from independent claim 25.

Applicant also stated that one of ordinary skilled in the art would understand that the single user action corresponds to providing the WAN IP available and the remaining configuration and deploying is done without user intervention. Examiner disagrees.

The recitation "from a single user action" in the art, more specifically, in view of configuration servers over the network or configuration servers, could mean to include multicasting the images to plurality of servers and more.

Claim Rejections - 35 USC § 101

The 101 rejection presented in the previous office action is withdrawn in light of amendments filed 6/16/08. Claim 25 is now directed to a physical machine.

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show all the elements of **figure 3** as described in the specification filed 11/19/08. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing.

MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required

in reply to the Office action to avoid abandonment of the application. Any amended replacement

drawing sheet should include all of the figures appearing on the immediate prior version of the

sheet, even if only one figure is being amended. The figure or figure number of an amended

drawing should not be labeled as "amended." If a drawing figure is to be canceled, the

appropriate figure must be removed from the replacement sheet, and where necessary, the

remaining figures must be renumbered and appropriate changes made to the brief description of

the several views of the drawings for consistency. Additional replacement sheets may be

necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after

the filing date of an application must be labeled in the top margin as either "Replacement Sheet"

or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: The specification

filed on 11/19/08 lacks the **description of the figure 3**.

Appropriate correction is required.

Claim Objections

Claim 39 is objected to because of the following informalities:

Claim 39 is recited as being dependent on cancelled claim 38.

Appropriate correction is required.

For examination purposes, the claim 39 is interpreted as being dependent on claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2.   Claims 1, 7, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Abboud et al. (hereinafter Abboud, US 2002/0184484 A1) in view Steitle et al. (hereinafter

Steitle, US 2002/0188700 A1), and further in view of in view of Fong et al. (hereinafter Fong,

US 2003/0055919 A1).

As per claim 1, Abboud discloses a method comprising:

graphic user interface (fig. 6 item #600);

configuring logic to configure network settings, including IP addresses, links and ports for a plurality of servers in the network (pg. 3 block #36);

building a respective digital image with the network settings for each of the plurality of servers in the network, the plurality of servers having different server type than the first server and operable to support dissimilar operations (pg. 2 block #15, pg. 5 block #50 and fig. 4B item #459); and

deploying each of the respective digital images onto the plurality of servers in the network, the second server accessible to network traffic via the first server, digital images deployed with settings and parameters onto components such that the components operable cohesively without the need to manually adjust the settings or parameters (fig. 2, pg. 2 block #16, pg. 3 block #32, 36 pg. 5 block #47, 51, pg. 6 block #61 and fig. 4A item #405; the functionality wherein the components operate cohesively without the need to manually adjust the settings or parameters is inherent and/or obvious with claim 1, 25 because digital images are configured with settings and parameters before deployment).

However, Abboud does not disclose the process of receiving a design list for a plurality of network servers, the design list comprising functions of the network, amount of hardware for the network, type of hardware for the network and number of WAN IP addresses assigned to the network; generating a plurality of networks designs for the plurality of network servers based upon the design rule and the design list wherein the design rule determines a first server in the network is a gateway server layered in a network location such that the gateway server is the first in receiving all incoming data packets to the network; configuring software and hardware settings including switches, jumpers, for the plurality of servers based upon the design rule and

network design and wherein the software and hardware settings are determined to provide cohesive network settings operable to interconnect the plurality of network servers.

Steitle, from the same field of endeavor discloses the process of receiving a design list for a plurality of network servers, the design list comprising functions of the network, amount of hardware for the network, each hardware responsive to a particular digital image file for performing operations based on the design list, type of hardware for the network and number of WAN IP addresses assigned to the network; generating a plurality of networks designs for the network servers based upon the design rule and the design list wherein the design rule determines a first server in the network is a gateway server layered in a network location such that the gateway server is first in receiving all incoming data packets to the network (i.e. a firewall server), each design corresponding to a digital image for a respective network server (i.e. design indicates how the digital image is to be imaged for a server) and configuring software and hardware settings including switches, jumpers, for the server based upon the design rule and network design, the second server having different server type than the first server and operable to support dissimilar operations, and wherein the second server is accessible to network traffic via the first server (fig. 2, fig. 4: shows the designed network including servers, firewall, routers, web server, etc., pg. 1 [0012-0015], pg. 2 [0019-0021], [0023-0026]).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Abboud in view of Steitle in order to design a network and configure the software and hardware based upon the design rule and the designed network.

One of ordinary skilled in the art would have been motivated because it would have allowed a user to design and implement a network comprising servers, routers, firewalls, etc. (Steitle, pg. 1 [0005], [0012]).

However, Abboud and Steitle do not disclose the process wherein the software and hardware settings are determined to provide cohesive network settings operable to interconnect the plurality of network servers.

Fong discloses configuring the hardware and software settings on top of the base image, wherein the software and hardware settings are determined to provide cohesive network settings operable to interconnect the plurality of network servers (fig. 5 step #508, 510, fig. 8 step #814, 816, pg. 4: Table 3 shows the hardware and software settings including cohesive network settings, pg. 5: Table 4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Abboud and Steitle in view of Fong in order to configure the software and hardware settings to provide cohesive network settings to interconnect the plurality of network servers.

One of ordinary skilled in the art would have been motivated because it would have provided a mechanism for configuring the servers without any interaction from the user (Fong: pg. 5 [0040]).

As per claim 7, Abboud-Steitle-Fong discloses the process of dynamically building the digital image from at least one generic digital image to include at least one custom application (Fong: fig. 5 step #508, 510, fig. 8 step #814, 816, pg. 4: Table 3 shows the hardware and

software settings including cohesive network settings, pg. 5: Table 4: configuring the image

using the base software image with customization).

As per claim 37, Abboud discloses the process of determining a server type, the server

type indicative of the configured parameters (fig. 6: shows the server type, model number and

the platform).

As per claim 39, Abboud and Steitle do not discloses the process of deploying images for

a plurality of servers at substantially same time.

Fong discloses the process of transferring and/or downloading the images for plurality of

servers at the same time (pg. 7 [0050]).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time

the invention was made to modify Abboud and Steitle in view of Fong in order to deploy and/or

transfer images for plurality of servers at the same time.

One of ordinary skilled in the art would have been motivated because it would have

configured plurality of servers at the same time (Fong: [0050]).

3.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abboud et al.

(hereinafter Abboud, US 2002/0184484 A1) in view Steitle et al. (hereinafter Steitle, US

2002/0188700 A1), in view of Fong et al. (hereinafter Fong, US 2003/0055919 A1), and further

in view of Haun et al. (hereinafter Haun, U. S. Patent No. 6,751,658 B1).

As per claim 8, Abboud, Steitle and Fong do not explicitly disclose the process of

deploying the dynamically built image over a network connection in response to a net boot

request from a first server.

Haun, from the same field of endeavor, discloses the process of transferring the boot image over a network connection in response to a net boot request from a network client (a network computer or server, fig. 3 step# 355, 375, 380, 385 and col. 9 L9 to col. 10 L16).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to incorporate the teaching of Haun as stated above with Abboud, Steitle and Fong in order to transfer or deploy the boot image in response to a net boot request from a server.

One of ordinary skilled in the art would have been motivated because net booting approach greatly simplifies network computers client administration and provides a high level of reliability for the network computers and/or servers (Haun, col. 9 L33-36).

4.   Claims 25, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abboud et al. (hereinafter Abboud, US 2002/0184484 A1) in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1), and further in view of in view of Raymond et al. (hereinafter Raymond, US 6,108,697).

As per claim 25, Abboud discloses an apparatus comprising:

graphic user interface (fig. 6 item #600);

configuring logic to configure network settings, including IP addresses, links and ports for a plurality of servers in the network (pg. 3 block #36);

digital image building logic to build a respective digital image with the network settings for each of the plurality of servers in the network, the plurality of servers having different server

type than the first server and operable to support dissimilar operations (pg. 2 block #15, pg. 5 block #50 and fig. 4B item #459); and

deployment logic to deploy each of the respective digital images onto the plurality of servers in the network, the second server accessible to network traffic via the first server, digital images deployed with settings and parameters onto components such that the components operable cohesively without the need to manually adjust the settings or parameters (fig. 2, pg. 2 block #16, pg. 3 block #32, 36 pg. 5 block #47, 51, pg. 6 block #61 and fig. 4A item #405; the functionality wherein the components operate cohesively without the need to manually adjust the settings or parameters is inherent and/or obvious with claim 1, 25 because digital images are configured with settings and parameters before deployment).

However, Abboud does not disclose the process of receiving a design list for a plurality of network servers, the design list comprising functions of the network, amount of hardware for the network, type of hardware for the network and number of WAN IP addresses assigned to the network; generating a plurality of networks designs for the plurality of network servers based upon the design rule and the design list wherein the design rule determines a first server in the network is a gateway server layered in a network location such that the gateway server is the first in receiving all incoming data packets to the network; configuring software and hardware settings including switches, jumpers, for the plurality of servers based upon the design rule and network design and deploying logic to deploy each of the respective digital images onto the plurality of servers from a single user action.

Steitle, from the same field of endeavor discloses the process of receiving a design list for a plurality of network servers, the design list comprising functions of the network, amount of

hardware for the network, each hardware responsive to a particular digital image file for performing operations based on the design list, type of hardware for the network and number of WAN IP addresses assigned to the network; generating a plurality of networks designs for the network servers based upon the design rule and the design list wherein the design rule determines a first server in the network is a gateway server layered in a network location such that the gateway server is first in receiving all incoming data packets to the network (i.e. a firewall server), each design corresponding to a digital image for a respective network server (i.e. design indicates how the digital image is to be imaged for a server) and configuring software and hardware settings including switches, jumpers, for the server based upon the design rule and network design, the second server having different server type than the first server and operable to support dissimilar operations, and wherein the second server is accessible to network traffic via the first server (fig. 2, fig. 4: shows the designed network including servers, firewall, routers, web server, etc., pg. 1 [0012-0015], pg. 2 [0019-0021], [0023-0026]).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Abboud in view of Steitle in order to design a network and configure the software and hardware based upon the design rule and the designed network.

One of ordinary skilled in the art would have been motivated because it would have allowed a user to design and implement a network comprising servers, routers, firewalls, etc. (Steitle, pg. 1 [0005], [0012]).

However, Abboud and Steitle do not disclose deploying logic to deploy each of the respective digital images onto the plurality of servers from a single user action.

Raymond discloses deploying logic to deploy each of the respective digital images onto the plurality of servers from a single user action (col. 3 L14-16, col. 4 L30-54, col. 9 L5-67, col. 16 L16-67: user initiates the one to many deployments of software).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Abboud and Steitle in view of Raymond in order to deploy and/or transfer images for plurality of servers by single user action.

One of ordinary skilled in the art would have been motivated because it would have configured plurality of servers at the same time (Raymond: col. 3 L66 to col. 4 L9).

As per claim 31, Abboud does not disclose the process wherein the design rule determines how a component in a network can or cannot be employed in the network.

Steitle, from the same field of endeavor discloses the process wherein the design rule determines how a component in a network can or cannot be employed in the network (fig. 2, fig. 4: shows the designed network including servers, firewall, routers, etc., pg. 1 [0012-0015], pg. 2 [0019-0021], [0023-0026]).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Abboud in view of Steitle in order to provide a rule on how component in a network can or cannot be employed.

One of ordinary skilled in the art would have been motivated because of the same reasons as set forth in claim 25.

As per claim 33, Abboud-Steitle discloses the process wherein the design rule logic further include instructions to determine how a server in a network can or cannot be employed in

the network (Steitle: fig. 2, fig. 4: shows the designed network including servers, firewall, routers, etc., pg. 1 [0012-0015], pg. 2 [0019-0021], [0023-0026]).

5.   Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abboud et al. (hereinafter Abboud, US 2002/0184484 A1) in view in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1), in view of in view of Fong et al. (hereinafter Fong, US 2003/0055919 A1), and further in view of Li et al. (hereinafter Li, US 6,012,088).

        As per claim 30, Abboud, Steitle and Fong does not disclose the process wherein the number of WAN IP addresses being fewer than the numbers of servers in the network and wherein configuring network settings comprising sending a request to a Domain Name system Server.

        Li discloses a system comprising a DNS server, DHCP server and a NAT server that translates host and network addresses (fig. 6 item #236, 238, 210, col. 2 L60-67, col. 8 L15-34: note that whenever a NAT server in configured in the network, It implies that the local network has fewer global or WAN IP addresses than the number of hosts in the network, and the NAT server solves the problem by translating the local IP address to the global IP address).

        Therefore, it would have obvious to a person of ordinary skilled in the art at the time the invention was made to modify Abboud, Steitle and Fong in view of Li in order to include NAT and DNS servers in the network.

        One of ordinary skilled in the art would have been motivate because it would have enabled communications between the local area network (LAN) and the Internet (Li, col. 2 L60-67, col. 8 L24-26).

6.   Claims 22 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abboud

et al. (hereinafter Abboud, US 2002/0184484 A1) in view in view Steitle et al. (hereinafter

Steitle, US 2002/0188700 A1), further in view of in view of Raymond et al. (hereinafter

Raymond, US 6,108,697), and further in view of Li et al. (hereinafter Li, US 6,012,088).

        As per claim 22, Abboud, Steitle and Raymond does not disclose the process wherein the

number of WAN IP addresses being fewer than the numbers of servers in the network.

        Li discloses a system comprising a DNS server, DHCP server and a NAT server that

translates host and network addresses (fig. 6 item #236, 238, 210, col. 2 L60-67, col. 8 L15-34:

note that whenever a NAT server is configured in the network, It implies that the local network

has fewer global or WAN IP addresses than the number of hosts in the network, and the NAT

server solves the problem by translating the local IP address to the global IP address).

        Therefore, it would have obvious to a person of ordinary skilled in the art at the time the

invention was made to modify Abboud, Steitle and Raymond in view of Li in order to include

NAT and DNS servers in the network.

        One of ordinary skilled in the art would have been motivate because it would have

enabled communications between the local area network (LAN) and the Internet (Li, col. 2 L60-

67, col. 8 L24-26).

        As per claim 35, Abboud, Steitle and Raymond does not disclose the system wherein

configuration logic installs a NAT on third server, wherein the NAT routes data packets to and

from a virtual IP address of the network.

Li explicitly discloses the system comprising a Domain Name system and an installed network address translator (NAT) for routing the data packets from virtual IP address to the Internet or external network (fig. 6 item #236, 238, 210, col. 2 L60-67, col. 8 L15-34).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Abboud, Steitle and Raymond in view of Li, in order to include a Domain Name server and NAT server.

One of ordinary skilled in the art would have been motivated in order to enable the local area network (LAN) to communicate with the Internet successfully (Li, col. 2 L60-67, col. 8 L24-26).

7.   Claims 41, 43-44 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fong et al. (hereinafter Fong, US 2003/0055919 A1) in view in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1), further in view of in view Kawas et al. (hereinafter Kawas, US 6,058,262).

As per claim 41, Fong discloses a computer implemented method for configuring and deploying network servers, the method comprising:

configuring software settings for a plurality of network servers, at least two of which have different server functions (fig. 1: network of different servers, fig. 5 step #508, fig. 7 step #714, 716, fig. 8 step #814, 816), settings for each server being configured to implement the network topology and server function using the IP address (pg. 4: Table 3: hardware and software settings to implement a topology, pg. 5: Table 4: deployment options);

building a respective configured digital image for each of the plurality of network servers by importing a generic digital image corresponding to a given server function and incorporating the corresponding software configuration settings to implement the network topology and server function (fig. 1: network of different servers, fig. 5 step #508, fig. 7 step #714, 716, fig. 8 step #814, 816, pg. 5: Table 4); and

deploying each configured digital image to a corresponding one of the plurality of network servers (pg. 5 [0040], [0042], fig. 5 step #510, fig. 8 step #810).

However, Fong does not disclose the process of configuring based upon a network design specifying functions of each of the plurality of servers and a number of WAN IP addresses and based upon a selected network topology.

Steitle, from the same field of endeavor discloses the process of receiving a design list for a plurality of network servers, the design list comprising functions of the network, amount of hardware for the network, each hardware responsive to a particular digital image file for performing operations based on the design list, type of hardware for the network and number of WAN IP addresses assigned to the network; receiving design rule logic including a set of design rules indicative of links interconnecting the components; generating a plurality of networks designs for the network servers based upon the design rule and the design list wherein the design rule determines a first server in the network is a gateway server layered in a network location such that the gateway server is first in receiving all incoming data packets to the network (i.e. a firewall server), each design corresponding to a digital image for a respective network server (i.e. design indicates how the digital image is to be imaged for a server) and configuring software and hardware settings including switches, jumpers, for the server based upon the design rule and

network design, the second server having different server type than the first server and operable

to support dissimilar operations, and wherein the second server is accessible to network traffic

via the first server (fig. 2, fig. 4: shows the designed network including servers, firewall, routers,

web server, etc., pg. 1 [0012-0015], pg. 2 [0019-0021], [0023-0026]).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time

the invention was made to modify Fong in view of Steitle in order to configure, build and deploy

the image based upon the designed network.

One of ordinary skilled in the art would have been motivated because it would have

allowed a user to design, configure and implement a network comprising servers, routers,

firewalls, etc. (Steitle, pg. 1 [0005], [0012]).

However, Fong in view of Steitle do not disclose the process of selecting a network

topology.

Kawas discloses the process wherein the user inputs a network specification and/or the

network specification is retrieved from the database, wherein the network specification includes

the type of network topology to implement (fig. 2 step #202, 204, 206, col. 4 L21-55: network

technology/topology includes Ethernet, ATM, and FDDI ring), and designing a network based

on the network specifications (fig. 2 step #208).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time

the invention was made to modify Fong and Steitle in view of Kawas in order to select the

network topology for designing a network.

One of ordinary skilled in the art would have been motivated because it would have

generated a network design based on the selected topology.

As per claim 43, Fong discloses the method further comprising building the respective configured digital image for each sever and deploying each configured image without the user intervention (pg. 5 [0040]).

As per claim 44, Fong-Steitle-Kawas discloses the method further comprising selecting a network topology from a list of potential topologies wherein the potential network topologies are determined by network topology logic based on the number and function of the plurality of network servers in the network design (Kawas: fig. 2 step #202, 204, 206, col. 4 L21-55: network technology/topology includes Ethernet, ATM, and FDDI ring), and designing a network based on the network specifications (fig. 2 step #208).

As per claim 48, Fong-Steitle discloses the method wherein at least one of the plurality of servers functions as a firewall server (fig. 2, fig. 4: shows the designed network including servers, firewall, routers, web server, etc., pg. 1 [0012-0015], pg. 2 [0019-0021], [0023-0026]) and wherein configuring comprises incorporating rules that govern what is allows and what is not allowed through a firewall into the configured digital image (Fong: fig. 5 step #508, fig. 8 step #814, 816: if configuring a firewall, the rules are driving logic of the firewall).

8.   Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fong et al. (hereinafter Fong, US 2003/0055919 A1) in view in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1), in view of in view Kawas et al. (hereinafter Kawas, US 6,058,262), and further in view of Li et al. (hereinafter Li, US 6,012,088).

As per claim 42, Fong-Steitle-Kawas discloses the method as in claim 41 set forth above.

However, Fong-Steitle-Kawas does not disclose incorporating NAT into configured digital image if the number of assigned WAN IP address is less than a number of components specified in the network design.

Li discloses a system comprising a DNS server, DHCP server and a NAT server that translates host and network addresses (fig. 6 item #236, 238, 210, col. 2 L60-67, col. 8 L15-34: note that whenever a NAT server is configured in the network, It implies that the local network has fewer global or WAN IP addresses than the number of hosts in the network, and the NAT server solves the problem by translating the local IP address to the global IP address).

Therefore, it would have obvious to a person of ordinary skilled in the art at the time the invention was made to modify Fong, Steitle and Kawas in view of Li in order to incorporate the NAT into the configured image.

One of ordinary skilled in the art would have been motivate because it would have enabled communications between the local area network (LAN) and the Internet (Li, col. 2 L60-67, col. 8 L24-26).

9.   Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fong et al. (hereinafter Fong, US 2003/0055919 A1) in view in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1), in view of in view Kawas et al. (hereinafter Kawas, US 6,058,262), and further in view of Applicant admitted Prior Art (AAPA).

As per claim 45, Fong-Steitle-Kawas do not teach the process wherein configuring comprises configuring the plurality of servers to be aware of other components within the

network and linked to one or more of the other components within the network to produce a server farm after the configured digital images are deployed to corresponding servers.

AAPA teaches the process wherein configuring comprises configuring the plurality of servers to be aware of other components within the network and linked to one or more of the other components within the network to produce a server farm after the configured digital images are deployed to corresponding servers (pg. 2 [003]: Background of Invention: user configuring each component in the network to have links to each other in order to work as a clustered group after the digital image is deployed).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Fong-Steitle-Kawas in order to configure the group of servers after the images are deployed.

One of ordinary skilled in the art would have been motivated because it would enable the servers to work a clustered group.

10.   Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fong et al. (hereinafter Fong, US 2003/0055919 A1) in view in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1), in view of in view Kawas et al. (hereinafter Kawas, US 6,058,262), and further in view of "Official Notice".

As per claim 46, Fond-Steitle-Kawas do not explicitly teach the process of automatically installing each configured digital image on a corresponding server after deploying.

But, the feature automatic installing the deployed image is fairly known in the art. Official Notice is taken.

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify (if necessary) in order to automatically install the deployed image.

One of ordinary skilled in the art would have been motivated because it would have deployed a functionally operating computer system.

11.   Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fong et al. (hereinafter Fong, US 2003/0055919 A1) in view in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1), in view of in view Kawas et al. (hereinafter Kawas, US 6,058,262), and further in view of Haun et al. (hereinafter Haun, U. S. Patent No. 6,751,658 B1).

As per claim 47, Fong, Steitle and Kawas do not explicitly disclose the process of deploying the dynamically built image over a network connection in response to a net boot request from a first server.

Haun, from the same field of endeavor, discloses the process of transferring the boot image over a network connection in response to a net boot request from a network client (a network computer or server, fig. 3 step# 355, 375, 380, 385 and col. 9 L9 to col. 10 L16).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to incorporate the teaching of Haun as stated above withFong, Steitle and Kawas in order to transfer or deploy the boot image in response to a net boot request from a server.

One of ordinary skilled in the art would have been motivated because net booting approach greatly simplifies network computers client administration and provides a high level of reliability for the network computers and/or servers (Haun, col. 9 L33-36).

Additional References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a.   Malik et al., US 5,832,503: Method and Apparatus for configuration management in communication networks.

b.   Abboud et al., U. S. Patent No. 6,636,958 B2.

c.   Ludovici et al., U. S. Patent No. 6,567,849 B2.

d.   Wilde et al., U. S. Patent No. 6,066,182.

e.   Knox et al., U. S. Patent No. 5,978,911.

f.   Selitrennikoff et al., U. S. Patent No. 6,301,612 B1.

Conclusion

Examiner's Remarks: The teachings of the prior art should not be restricted and/or limited to the citations by columns and line numbers, as specified in the rejection. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references

in its entirety as potentially teaching all or part of the claimed invention, as well as the context of

the passage as taught by the prior art or disclosed by the examiner.

In the case of amendments, Applicant is respectfully requested to indicate the portion(s)

of the specification which dictate(s) the structure relied on for proper interpretation and support,

for ascertaining the metes and bounds of the claimed invention.

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action.   Accordingly, **THIS ACTION IS MADE FINAL**.   See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action.   In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to KAMAL B. DIVECHA whose telephone number is (571)272-

5863. The examiner can normally be reached on Increased Flex Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status information for unpublished
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like assistance from a USPTO Customer Service Representative or access to the automated
information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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